

IN THE CLAIMS

This listing of claims replaces all prior listings:

1. (Currently Amended) A light control device comprising:
opposing substrates with a gap therebetween;
liquid crystal in said gap sealed between said opposing substrates, said liquid crystal being a polymer network liquid crystal; ~~and~~
optically transparent electrodes on gap-side surfaces of each of said opposing substrates and in contact with said liquid crystal;
an image processing unit which detects a luminance signal of said liquid crystal;
a temperature detecting unit which detects a temperature of said liquid crystal; and
a pulse control unit which controls a width of a pulse of an applied voltage for driving said liquid crystal, the pulse control unit controlling said width of said pulse according to both of said temperature detected by said temperature detecting unit and said luminance detected by said image processing unit,
wherein,
said gap between said opposing substrates along an effective optical path has a width between about 4 μ m and about 11 μ m.
2. (Previously Presented) The light control device according to claim 1, wherein said gap width is between about 6 and 10 μ m.
3. (Previously Presented) The light control device according to claim 1, wherein said opposing substrates are optically transparent.
4. (Cancelled)
5. (Currently Amended) The light control device according to claim ~~[[4]]~~ 1, wherein said applied voltage is an AC pulse voltage.

6. (Currently Amended) A method for driving a light control device having opposing substrates with a gap therebetween, liquid crystal in said gap sealed between said opposing substrates, said liquid crystal being a polymer network liquid crystal, optically transparent electrodes on gap-side surfaces of each of said opposing substrates and in contact with said liquid crystal, an image processing unit which detects a luminance signal of said liquid crystal, a temperature detecting unit which detects a temperature of said liquid crystal, a pulse control unit which controls a width of a pulse of an applied voltage for driving said liquid crystal based on both of said temperature detected by said temperature detecting unit and said luminance signal detected by said image processing unit, and said gap between said opposing substrates along an effective optical path has a width between about 4 μ m and about 11 μ m, said driving method comprising:

applying a voltage for driving said liquid crystal element;
detecting a temperature of said liquid crystal element; and
controlling said applied voltage for driving said liquid crystal element, according to the detected temperature of said liquid crystal element.

7. (Cancelled)

8. (Previously Presented) The method for driving a light control device according to claim 6, wherein said applied voltage is an AC pulse voltage.

9. (Previously Presented) An image pickup apparatus, wherein the light control device according to any of claims 1 to 5 is disposed in an optical path of an image pickup system of said image pick up apparatus.

10. (Currently Amended) The light control device according to claim ~~[[4]]~~ 1, wherein said detected temperature is an environmental temperature.